Fostering Accessible Career Pathways in Cybersecurity

2022 Supplemental Budget Request

SUMMARY

To respond to the number of high demand jobs and displaced workers, CWU is proposing the development of several expansions to our current cybersecurity coursework to enhance our programs to meet the demand, with the following three additions. **($1.4 million)**

- Developing a **10-week bootcamp** to equip students, recently laid off from the pandemic or in the process of a career change, with the knowledge and information to succeed.

- Hiring an additional **faculty member with expertise in cybersecurity** to provide more class availability in the Department of Computer Science.

- Developing a **virtual and physical lab** capable of supporting students and faculty using multimodal learning and cloud-based software.

Developing a Bootcamp Accessible to Everyone

CWU is proposing to expand cybersecurity education capacity by creating a cybersecurity bootcamp that prepares individuals to earn a certificate as evidence of cybersecurity expertise. This certificate would be available to anyone, not just college students at CWU. There is special interest now in this bootcamp program since there are a number of high demand jobs that would benefit displaced workers, career switchers, and others who may not have IT experience.

Enhancing Our Program with Specialized Faculty

CWU is also proposing further developing the current programs by hiring faculty with expertise in cybersecurity. CWU currently offers coursework through the Department of Computer Science, but only offers one cybersecurity course, every two years as an elective. The department specializes in Machine Learning (ML) and Artificial Intelligence (AI), while lacking a faculty member with specific expertise in cybersecurity. The funding would allow CWU to increase the frequency and depth of cybersecurity coursework.

Expand Cybersecurity Capacity with Lab Facilities

CWU is proposing creating a specialized lab with the software and hardware needed for cybersecurity education and research. A dedicated cybersecurity laboratory will facilitate student learning and innovation. The cybersecurity lab will provide faculty and students with access to modern technologies and tools to help them learn both technical and business aspects of cybersecurity. The lab will have two major components:

- **Virtual Lab:** The lab will give students access to the cloud-based and fully virtualized, sandboxed ethical hacking and testing environment.

- **Physical Lab:** The cybersecurity lab will be capable of supporting 20 students and a faculty person using student collaboration and multimodal learning.